

Title (en)

Check valve and valve with such a check valve

Title (de)

Rückschlagventil sowie Ventil mit einem solchen Rückschlagventil

Title (fr)

Soupape non-retour et vanne avec une telle soupape non-retour

Publication

EP 1291563 B1 20060719 (DE)

Application

EP 02018813 A 20020823

Priority

DE 10143433 A 20010905

Abstract (en)

[origin: EP1291563A2] The non-return valve comprises a ring (6) made from a strip of spring steel. There may be a gap between the ends of the strip or they may overlap. An Independent claim is included for a valve system containing the ring.

IPC 8 full level

F16K 15/08 (2006.01); **F01L 1/34** (2006.01); **F01L 1/344** (2006.01); **F16K 15/14** (2006.01)

CPC (source: EP US)

F01L 1/34 (2013.01 - EP US); **F01L 1/344** (2013.01 - EP US); **F01L 1/3442** (2013.01 - EP US); **F16K 15/08** (2013.01 - EP US); **F16K 15/142** (2013.01 - EP US); **F01L 2001/34426** (2013.01 - EP US); **Y10T 137/784** (2015.04 - EP US); **Y10T 137/7869** (2015.04 - EP US)

Cited by

DE102012201548B4; WO2006136258A1; FR3093345A1; EP2386731A1; CN103670565A; CN106662051A; DE102019105607A1; EP2441928A4; DE102007050447B4; DE102005013085B3; EP1703184A1; EP2503201A1; DE102011087664A1; DE102011087664B4; CN110192008A; FR3032748A1; FR3083569A1; CN112352091A; DE102009042889A1; EP3530892A1; US11300017B2; US8316889B2; US10895328B2; US8146549B2; US8757114B2; US7600531B2; WO2010139522A1; WO2007131866A1; DE102010018200A1; WO2011134750A1; WO2007068586A1; WO2016001166A1; US8684041B2; DE102014118794A1; DE102007050447A1; WO2011104058A1; DE102010009401A1; WO2020007709A1; WO2009089960A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

EP 1291563 A2 20030312; **EP 1291563 A3 20031203**; **EP 1291563 B1 20060719**; AT E333617 T1 20060815; DE 10143433 A1 20030403; DE 10143433 B4 20130926; DE 50207545 D1 20060831; ES 2267908 T3 20070316; PT 1291563 E 20061130; US 2003070713 A1 20030417; US 6899126 B2 20050531

DOCDB simple family (application)

EP 02018813 A 20020823; AT 02018813 T 20020823; DE 10143433 A 20010905; DE 50207545 T 20020823; ES 02018813 T 20020823; PT 02018813 T 20020823; US 6486102 A 20020823